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PUBLIC HEALTH DEPARTMENT,

GUILDHALL, CAMBRIDGE,

February 12th, 1926.

To the Chairman and Members of the School Hygiene Committee

MR CHAIRMAN, LADIES AND GENTLEMEN,

I beg to present for your consideration my Report upon the medical inspection and treatment of children in the elementary schools, and the Report of the Borough Dentist, for the year 1925.

The facts revealed are (with one exception) of a thoroughly satisfactory nature. This is so not only in regard to the general health and well-being of the children, but more especially in regard to the dental work. The year 1925 reaches the high-water mark in regard to the number of children examined in any single year, and the condition of the children's teeth has been brought to a level slightly above the previous year, a condition which is unlikely to be surpassed in succeeding years.

The exception to this good record, referred to above concerns the Open-Air School. It is a matter of the utmost concern that it would seem to be impossible to make further progress for a considerable time towards the establishment of an Open-Air School in keeping with the needs of the children. The temporary Open-Air School was established in 1916, so that for nearly ten years we have been looking forward to having a permanent Open-Air School. A site has been purchased, bricks have been deposited on the site ready for use, a new sewer has been laid, plans have been prepared and approved by the Education Committee and the Council, estimates have been obtained, and there it would seem—owing to the urgent need for national economy—it must stop.

I am,

Your obedient Servant,

ANDREW J. LAIRD,

School Medical Officer.

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Report of the School Medical Officer.

FOR THE YEAR 1925.

Population of the Borough	59020
Area of the Borough	...	...	...	...	5457 acres
Number of Elementary Schools	...	...	...	...	21
Number of Departments	...	...	...	...	41
Average number of Children on the Registers	...	...	...	...	7232
Average Attendance	...	...	...	...	6260

In addition to the ordinary Elementary Schools there are also the temporary Open Air School in Vinery Road, and the Hope Class for backward children in Paradise Street, each with accommodation for 40 children.

Staff.—The officers in the service of the Education Committee are :

School Medical Officer	...	Andw. J. LAIRD, M.D., C.M., D.P.H.
Assistant School Medical Officer	...	A. Mabel GURNEY, M.B., Ch.B., D.P.H.
Public Dental Officer	...	W. Baird GRANDISON, L.D.S., R.C.S.
Assistant Public Dental Officer	...	Miss E. O. BETTS, L.D.S. (Eng.)
Bacteriologist	...	W. H. HARVEY, M.D.
Dental Attendants	...	Miss M. A. BENNETT.
		Miss G. M. LYON.
School Nurses	...	Miss M. M. W. STEVENS.
		Miss F. A. NICHOLLS.
Clerk	...	Miss G. M. WALLIS.

together with the part time services of the Chief Clerk in the Public Health Department.

School Premises.—Two schools, viz : Occupation Road C.E. Infants' and Newnham C.E. Mixed Schools were closed during 1925, owing to the re-grouping of the schools.

No new premises were built during the year.

The routine medical inspections are carried out on the school premises with the following exceptions, viz :—

St Paul's Boys', Girls' and Infants' School ; children were inspected in the St Paul's Institute.

St Barnabas' Girls' were inspected in the Church Institute.

Abbey Mixed ; the children were inspected in the Parish Room.

St Andrew's Boys' were also inspected in the Parish Room.

Brunswick School ; boys and girls were inspected at the Clinic in Parkside owing to want of accommodation in the temporary premises.

In all these the rooms used are close to the schools.

Groups of Children Inspected.—The children inspected were those usually classified as Entrants, *i.e.*, children entering school for the first time, the eight-year old children (intermediates), the twelve and thirteen year old children (leavers), and any other children presented for some special reason ("specials").

The number belonging to the first three age groups (routine cases) and the number specially examined were :—

Routine Cases :		Boys.		Girls.		Total.
Entrants	..	413	...	445	...	858
Intermediates	...	352	..	294	...	646
Leavers	...	398	...	344	...	742
		<u>1163</u>		<u>1083</u>		<u>2246</u>

Special Inspections, 1264; re-inspections, 1094.

The following figures show the numbers examined in each group since 1919. The fluctuations in the number of entrants inspected follow closely corresponding fluctuations in the births five years before. From now onwards for some time there should be a fall each year in the number of entrants inspected.

	1919 (from May)	1920	1921	1922	1923	1924	1925
Entrants	671	1308	701	561	677	741	858
Intermediates	183	664	643	666	840	698	646
Leavers	392	1453	835	799	961	787	742
Total	<u>1246</u>	<u>3425</u>	<u>2179</u>	<u>2026</u>	<u>2478</u>	<u>2226</u>	<u>2246</u>

The following Table shows the number of routine inspections carried out at the various schools :—

		Entrants.		Intermediates		Leavers.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Barnwell Abbey	...	26	16	14	16	—	1
Brunswick Council	...	44	34	40	31	30	33
Central ..	...	—	—	—	—	115	102
East Road	...	23	23	—	11	52	35
King Street	...	8	10	8	6	—	—
Milton Road	...	42	49	48	34	25	20
Newnham Croft	...	13	22	5	—	—	—
New Street	...	16	20	14	15	18	16
Occupation Road	...	19	17	—	—	—	—
Park Street	...	15	28	—	20	—	20
Richmond Road	...	14	5	8	4	—	—
Romsey Council	...	—	—	45	22	20	23
St. Andrew's	...	9	14	11	6	14	13
St. Barnabas'	...	13	18	9	6	—	—
St. Giles'	...	15	11	9	9	1	—
St. Luke's	...	29	27	30	27	45	30
St. Matthew's	...	28	34	41	25	—	1
St. Paul's	...	18	26	15	12	20	16
St. Philip's	...	63	62	33	29	21	14
Union Road R. C.	...	2	5	6	7	7	7
Morley Memorial	...	16	24	16	14	21	13
		<u>413</u>	<u>445</u>	<u>352</u>	<u>294</u>	<u>398</u>	<u>344</u>
		858		646		742	

The number of routine inspections represents 39 per cent of the number of children in average attendance. The proportion of routine inspections in 1923 was 37 per cent, and in 1924 34 per cent of the average attendance.

Co-operation of Parents.—The proportion of parents who were present at the inspection of their children in school was 68·6 per cent., an increase of 7·4 per cent. over 1924, due mainly to the increase in the number of infants who were seen. The proportion of parents present varied from a minimum of 26·3 per cent. at St Giles' Mixed School to a maximum of 96 per cent. at St Giles' Infants School. The visit of the parents is made the occasion of informal talks upon the health of the children generally, and is undoubtedly of great value. The greater interest in health matters, including the health of school children, is also favourably influenced by the work of the Infant Welfare Centres, and by the talks to parents given by medical officers and dentists.

Inspection Clinic.—The Clinic is open every week-day including Saturdays, from 9.30 a.m. until 1 p.m. The Assistant Medical Officer, two School Nurses and a Clerk are in attendance.

The total number of children seen at the Clinic in 1925 was 1930, being 139 more than in 1924. The attendances in 1925 numbered 12,193, a decrease of 199 as compared with 1924.

The following are the figures for each quarter of the year :—

					Children.	Attendances.
1st Quarter ...	...	...	...	...	487	3509
2nd Quarter ...	...	...	...	...	538	3186
3rd Quarter ...	...	...	...	...	218	1175
4th Quarter ...	...	...	...	..	687	4323
					<hr/> 1,930	<hr/> 12,193

The numbers treated in previous years were :—

1916	1917	1918	1919	1920	1921	1922	1923	1924
330	457	449	908	1596	1917	1872	2523	1791

The average daily attendance during 1925 was 50, practically the same as in 1924.

Eye Clinic.—The number of children who attended for refraction was 92, 2 more than in 1924. The conditions were :—Astigmatic hypermetropia 53, astigmatic myopia 25, simple myopia 7, simple hypermetropia 2, and mixed eyes 5.

The numbers have been smaller during the past three years owing to arrears left from war years being made up and to the decrease in the number of "intermediates" and "leavers."

All the 1924 cases who had not received their spectacles by the end of that year received their spectacles during 1925 with the exception of six ; three refused to obtain them, one left the town, and two left school.

Fifty-three of these children were found at routine inspections in school.

Review of the facts disclosed by inspection.

Statistics are notoriously liable to mislead, but when the figures each year show a distinct tendency always in the same direction, there is some justification in assuming that they reveal more or less of the truth. We have in former reports indicated that if the figures are to be taken as an index of the real condition of the children, the Education Committee have good reason to be satisfied that their work in the schools is proceeding on right lines.

1. First, taking the records of height and weight, the figures show evidence of improved physique, both for boys and girls, slight no doubt, but still there, with the single exception of the eight-year old boys born in 1917.

The proportion above the average as regards general condition was higher than in any previous year, and the proportion below the average was the lowest yet found.

2. Excluding uncleanness and dental defects, the percentage of children in whom no defect was found at their routine inspection was higher in 1925 than previously. The defects found per 100 children examined were in 1922, 32; in 1923, 23; in 1924, 26, and in 1925, 19.

The defects which required treatment have fallen from 8.9 per cent in 1922 to 5.7 per cent in 1925.

Year.	No. seen at Routine Inspections.		No. of defects.	Total defects per cent.	Percentage of individual children requiring treatment	
1922	...	2026	667	32	8.9	
1923	...	2478	572	23	6.2	
1924	...	2226	582	26	6.3	
1925	..	2246	434	19	5.7	

3. The proportion of children found to be perfectly clean was the highest yet recorded.

4. The number of cases of ringworm also was the lowest for any year since medical inspection began.

On these grounds, therefore, I think it would not be unfair to claim that the facts revealed by the medical inspections in 1925 are a source of real satisfaction, and an encouragement to do better still.

The usual statistical details are given below under the same headings as in former Annual Reports.

General Physique and Nutrition.—If the figures are to be taken as a guide, considerable improvement has taken place, and the post-war school child is, on the whole, of better physique than the pre-war child. In 1908, 17 per cent., and in 1913, 15 per cent., of the children were of poor physique, whereas in 1925 only 1.8 per cent. were noted to be of poor physique.

In addition to the records of the height and weight of the children, there is the purely personal estimate made by Dr Gurney at the time of inspection, based upon bearing, colour, alertness, state of nutrition, etc. The standard adopted is the examiner's own personal one, and may involuntarily vary from time to time, but when the examiner is the same year by year the estimate may be taken as, on the whole, a fairly reliable one.

The following figures, showing the proportion of children considered to be above, and below average physique, are based upon this estimate, and lend support to the claim as to improvement, made above.

		1914	1922	1923	1924	1925
Above Average.	%	15	9.4	8.7	14.6	15.8
Below Average.	%	17	7.7	4.3	2.5	1.8

Cleanliness.—Without claiming too much, I think it is beyond all doubt that it is in respect of cleanliness that one of the greatest improvements has taken place. With a standard not so high as at present, fully half the children had nits or vermin in their hair when medical work in the schools began. The proportion of dirty children now is much lower even with the higher standard of cleanliness required. The chronic offenders are still there, but they are so frequently inspected and made to clean up that the contamination of the really clean children is much less frequent.

Other Changes.—Changes in the way of reductions have taken place in :—

			1911	1924	1925
External eye diseases	...	... (%)	8.3	3.2	3.4
Enlarged tonsils and adenoids	...	...	13.0	9.4	8.5
Ear disease	...	...	3.7	0.6	0.7
Deafness	...	...	5.6	3.1	1.9
Skin disease	...	...	3.1	0.3	0.05
Heart disease	...	...	3.8	5.4	3.3
Anaemia	...	...	4.0	4.5	1.8
Enlarged cervical glands	..	...	50	44	38

Height and Weight.—The following tables show the average height and weight of children seen at routine inspection for three ages, together with the record for previous years at the same ages.

BOYS.

Age in Years	No. Examined in 1925	Average Height in Inches.					Average Weight in Pounds.				
		1914	1922	1923	1924	1925	1914	1922	1923	1924	1925
5	197	40.69	41.21	41.03	41.51	41.68	38.66	39.47	38.71	39.48	40.3
8	349	47.30	47.38	47.88	48.55	48.26	51.63	56.44	53.80	55.31	54.0
12	379	54.68	54.78	52.20	55.35	55.55	72.34	73.47	71.30	75.37	76.0

GIRLS.

Age in Years	No. Examined in 1925	Average Height in Inches.					Average Weight in Pounds.				
		1914	1922	1923	1924	1925	1914	1922	1923	1924	1925
5	234	40.76	40.87	40.73	41.44	41.34	37.99	38.45	38.07	39.83	38.40
8	292	47.14	47.31	47.34	47.51	48.30	50.23	50.97	50.01	50.92	52.93
12	324	55.98	55.91	53.27	55.98	56.12	76.81	77.41	74.16	76.84	78.66

Clothing and Footgear.—The figures given with respect to these two items show curious fluctuations, the clothing showing a steady improvement, while the boots show a rapid deterioration. The children poorly clad numbered in 1923, 21; in 1924, 19, and in 1925, 16; the numbers with definitely bad foot-wear were in 1923, 14; in 1924, 54; and in 1925, 148.

There is thus distinct evidence of greater care of the clothing, and at the same time equally clear evidence of the increasing difficulty which some parents have in providing good boots and shoes for their children.

Cleanliness.—The routine, but unannounced visits of the Nurses to the schools for the purpose of noting the state of cleanliness of the children, form a very important part of their work. These visits are entirely independent of the routine medical inspections, of which parents have notice several days in advance, and which they are invited to attend.

The Nurses' visits reveal, therefore, what may be regarded as the normal condition of the children, as it is impossible for them to have been prepared beforehand.

The number of visits paid in this way was 295, a little (43) in excess of 1924.

The number of children seen was 4,662. In 1924 the number was 4,366.

The proportion found with pediculi was 4.4 per cent. in 1925; in 1924, 3.5 per cent; and in 1923, 5.9 per cent.

No proceedings were taken under Section 122 of the Children Act, 1908, but proceedings in Court were taken under the School Attendance Bye-laws in 50 cases, and fines of from 2/6 to 20/- were inflicted in 38 of these.

Valuable assistance with the most intractable cases was given by the Inspector of the National Society for the Prevention of Cruelty to Children.

Ringworm.—The very satisfactory position recorded in previous Annual Reports has been maintained in 1925. Only 15 new cases occurred, of which 5 were scalp cases. Four of these had X-ray treatment at Addenbrooke's Hospital. Four were treated at the School Clinic, and seven privately. There were only two cases in existence at the end of the year.

The new cases discovered each year from 1912 were as follows :—

1912	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25
70	41	120	80	84	38	33	58	44	39	37	24	26	15

External Eye Disease.—The conditions found were : Conjunctivitis 20, blepharitis 10, squint 41, and various other conditions 7, making a total of 78. The total number of similar conditions in 1923 was 68, and in 1924, 73.

Defective Vision.—The number of children found to have defective eyesight (i.e., 6/12 or worse) was 173, or 11.9 per cent.

This number includes 92 children who were already wearing spectacles, and 28 for whom no treatment was necessary.

Enlargement of the Thyroid Gland (Goitre).—The number of instances in which enlargement of the thyroid gland was found among school children twelve years of age was as follows for the years 1922-25 :—

Among 1,323 boys no cases at all, and
among girls in 1922, 4 cases out of 393 examined = 1.0 per cent.

1923, 4 " " 446 " = 0.8 " "

1924, 4 " " 379 " = 1.0 " "

1925, 3 " " 344 " = 0.8 " "

The enlargement recorded was sufficient to be noticed on casual inspection, without any measurement or palpation.

Tonsils and Adenoids.—192 children (8.5 per cent.) had considerably enlarged tonsils, and 213 (9.5 per cent.) had slightly enlarged tonsils. 45 also suffered from adenoids.

Ear Disease and Deafness.—The number of children found with defective hearing was 42 or 1.9 per cent. of those inspected. 16 had a purulent ear discharge (0.7 per cent.).

The figures for several years are given for comparison :—

	1911	1912	1913	1914	1922	1923	1924	1925
Otorrhea	3.7	1.8	1.2	1.3	1.0	0.4	0.6	0.7
Deafness	5.6	3.7	3.4	7.6	2.3	1.6	3.1	1.9

Diseases of the Lungs.—Four children presented definite signs of Tuberculosis of the lungs. In addition, a number of children with doubtful indications of pulmonary disease were referred to the Tuberculosis Officer for further examination.

Diseases of the Heart.—75 children presented symptoms of cardiac disease, of which 4 were considered to be organic and the remainder functional.

Defects of Speech were found in only 2 children.

Other Defects.—Included in this group are 40 children with anaemia, 17 with symptoms of nervous disease, 19 with deformities, and 41 with a variety of minor defects.

Vaccination.—The proportion of children found with vaccination marks in 1925 was 27.4 per cent. The proportion in 1924 was 31.4 per cent.

INFECTIOUS DISEASES.

There was a considerable increase in the number of notifications received from Head Teachers and School Attendance Officers, due mainly to the rise in the number of cases of Measles and Whooping Cough. Chicken Pox and Mumps were also prevalent in the schools for the second year in succession. Scarlet Fever and Diphtheria on the other hand contributed little to absence from school, the number of cases of the former disease among school children being only 30 out of a total of 78 cases at all ages, and of the latter 24 out of a total of 32 at all ages. Associated with the Diphtheria cases, 11 "carriers" of the disease were found among school children. The total number of swabbings in the schools was 532.

The following table shows the notifications received each year from Head Teachers and School Attendance Officers :—

	1918	1919	1920	1921	1922	1923	1924	1925
Influenza ...	296	113	33	13	1	4	3	7
Measles... ..	225	463	538	53	258	322	473	677
German Measles	16	5	1	26	1	1	8	5
Whooping Cough	614	38	75	142	297	42	15	283
Chicken Pox ...	108	175	181	122	55	54	260	332
Mumps... ..	13	37	88	1593	14	4	91	141
Ringworm ...	32	41	39	23	10	4	15	10
Scabies... ..	3	4	1	4	2	—	—	—
Skin Diseases ..	10	29	43	19	10	2	1	4
Others	488	463	278	172	77	64	122	63
Totals	1805	1427	1436	2173	725	497	588	1524

School Closure.—The question of school closure under Article 45 (b) of the Education Act has been dealt with in Circular 1337 issued by the Board of Education on the 29th July, 1924. In future "the Board will not regard the prevalence of an epidemic of infectious disease as a reasonable ground for closure save in exceptional circumstances, when the School Medical Officer advises or approves such closure on purely medical grounds." Attendances of less than 60 per cent. the result of infectious disease will not be reckoned in calculating the average attendance for the purpose of grant, provided the Medical Officer can testify to that effect. To this there is a special exception made in cases where the attendance has been abnormally low compared with the average of the area. Twelve certificates of attendance below 60 per cent were given in 1925, all in connection with Infant Departments. No schools were closed on account of infectious disease.

TREATMENT OF DEFECTS.

Treatment was given during the year to 583 cases of minor ailment, 99 cases of defective vision, 38 throat and nose cases, 2702 dental cases, and 1,112 cases of uncleanness, making a total of 4,534 cases treated; the number in 1924 was 4,821.

The details of the treatment relating to each class of defect will be found in Table IV. Those cases were dealt with as follows :—

1. *At Addenbrooke's Hospital.*—The X-ray treatment of ringworm of the scalp, the removal of tonsils and adenoids, the treatment of otorrhœa, and of a variety of other conditions, *e.g.*, curvative of the spine, chorea, disease of the eyes, etc., are all undertaken for the Education Committee at the Hospital. The Committee make an annual subscription to the Hospital of 50 guineas, and receive two hundred letters of recommendation for the use of school children.

In 1925 the number of letters of recommendation given for hospital treatment was 175, being 4 less than 1924.

The conditions for which treatment was required were (the figures for 1924 being in brackets) : disease of the ears 29 (27), eyes 28 (23), ringworm 4 (11), tonsils and adenoids 33 (36), skin disease 12 (18), minor injuries 33 (17), chorea 1 (2), various other conditions 45 (52), making

a total of 185 defects in 175 children. Of these 153 had received treatment by the end of the year.

Orthopaedic Treatment.—An orthopaedic out-patient Clinic at Addenbrooke's Hospital was opened in February 1925 under the charge of Dr Roderick. To this a number of Cambridge children, most of them of school age, have gone for advice and treatment. The number of children at all ages in 1925 from Cambridge was 60 out of a total of 146 from all the areas served by the Hospital. This includes practically all the crippled school children in the Borough known to require attention. The actual number of new cases likely to arise each year will be comparatively small, and in the absence of anything in the nature of an outbreak of infantile paralysis will probably be under a dozen.

Post-operative treatment of enlarged tonsils and adenoids.—The number of children operated on at the hospital for these conditions in the year was 33. The Parents in every case receive verbal and printed instructions as to after-care, and more especially as to the importance of nose breathing. In many of these children the habit of mouth breathing has become established, and only by education in nose breathing is the habit likely to be got rid of. If it is not, the benefit of the operation is largely wasted.

2. *Treatment at the School Clinic.*—There has been an increase in the number of children requiring treatment at the clinic, from 471 in 1924 to 482 in 1925. The number of attendances for treatment is less, having dropped from 4,316 in 1924 to 3,962 in 1925.

The number of children who attended the clinic for detailed examination of their eyesight was 92, the number in 1924 being 90, and in 1923, 103. By the end of the year spectacles had been obtained by all but 16 children.

3. In addition to the treatment provided by the Hygiene Committee mentioned above, 39 children were treated privately by their own doctors.

WORK OF THE SCHOOL NURSES.

As a rule the whole forenoon is taken up by work at the clinic; only occasionally have the nurses time for home visiting in the forenoon. The afternoons of the two nurses are taken up alternately in assisting at the routine medical inspections, and in paying visits to homes or to schools. The home visits are concerned with the "following-up" of defects found during routine inspections, and enquiring into the illnesses of children reported to be absent on medical grounds, while their afternoon visits to schools are concerned chiefly with inspections for cleanliness. These latter inspections are frequently interrupted during outbreaks of infectious diseases, but as far as possible an endeavour is made to inspect the children for cleanliness twice each term.

The total number of visits made to schools in the year was 531, of which 106 were in connection with the routine medical inspections, 295 for the cleanliness survey, 15 in connection with infectious diseases, and the remainder for various other purposes.

The "home" visits numbered 1,273 in the year, 667 for the purpose of following-up cases of defects found at routine inspections, 506 in connection with infectious disease, and 100 visits of enquiry as to the case of absence of children notified as ill by Head Teachers and School Attendance Officers.

The figures in 1924 were:—total home visits 1,265, following-up 567, infectious diseases 545, absentees 153.

DELICATE AND PHYSICALLY DEFECTIVE CHILDREN.

Open-Air School.—The number on the register of the temporary open-air school in Vinery Road at the beginning of the year was 39. During the year 28 children left and 29 were admitted, the figures for 1924 being 18 left and 19 admitted. Of the 28 children who left the school during the year, twenty-one were in a fit condition, sixteen to return to their ordinary schools, and five, who had reached the age of 14 years, to leave school altogether; one was sent to a sanatorium; one refused dental treatment; two refused sanatorium treatment; and three were excluded by the Tuberculosis Officer.

Supervision by the Tuberculosis Officer.—The total number of reports upon children received from the Tuberculosis Officer during the year was 243. These related to 145 children. Sixty-nine were definitely excluded from attendance at any school for varying periods, and fifty-two were recommended for the Open-Air School. Forty-one were recommended for sanatorium treatment, and thirty-one for malt and oil to be given at school.

The Tuberculosis Officer reports that the number of school children he had under observation during 1925 was 229.

Voluntary Agencies.—Every year a number of delicate children are sent for a change of air to the seaside by members of the Invalid Children's Aid Society. Forty-six were sent away during 1925, and all had been examined and passed as suitable by the Assistant School Medical Officer.

Other voluntary associations which carry on work among school children, and which give most valuable help, include the Care Committee, the Central Aid Society, and the Voluntary Association for Mental Welfare. The work which they do has been mentioned in previous Annual Reports, to which reference may be made.

The services of the Inspector of the National Society for the Prevention of Cruelty to Children have been asked for and given in the case of ten children during 1925. Five of these were in connection with the failure to obtain medical advice or treatment for defects discovered during the course of inspection, four were dirty children, and one other case.

This valuable help has for several years been given by this Society free of cost, and the Council agreed in 1924 to pay a fee to the Society of 5/- for each case visited and dealt with by the Inspector.

Provision of Meals.—The number of children who have attended for dinners at the centre in the Old Eden Street Schools during 1925 was 70.

In addition 110 children have been receiving, on the recommendation either of Dr Gurney or the Tuberculosis Officer, cod-liver oil and malt at school.

A very large number of children also receive either malt and oil or milk at school by request of their parents. The total receiving malt and oil during 1925 was 1,453, for which 1,275 paid; and the total having milk at school was 153, for which 145 paid.

All these children are seen by Dr Gurney at the clinic once a month, their condition noted and weights recorded.

Hope Class for Backward Children.—The number of children in this class at the beginning of 1925 was 33. Eight left and six were admitted, leaving 31 children in attendance at the end of 1925. Of the 8 who left, five had reached the age of 14, one child was sent to an institution for the feeble-minded, one returned to ordinary school, and one died.

Institutional Care.—The number of defective children maintained in Institutions by the Education Committee during 1925 was, three blind, ten deaf and dumb, and eleven mentally defective children.

Twelve children (8 Imbeciles and 4 Idiots) were notified to the Local Control Authority.

EMPLOYMENT OF SCHOOL CHILDREN.

Bye-laws for regulating the employment of children and young persons under the Employment of Children Act, 1903, and the Education Act, 1918, came into operation in June, 1922. Under these, all children between 12 and 14 about to be employed must first undergo an examination by the School Medical Officer as to their fitness for employment and a certificate signed by the School Medical Officer must have been obtained by the employer within 14 days of beginning employment.

The number examined and certified during 1925 was 82, all, with two exceptions, boys.

Street trading by young persons between 14 and 16 is also regulated by the same Bye-laws. Girls under 16 and boys under 15 are prohibited from trading in the street, and trading by boys between 15 and 16 is subject to a license being obtained from the Local Education Authority. The only grounds upon which a license can be refused are :—

- (a) That the applicant is by reason of physical or mental deficiency unfit to trade in the streets.
- (b) That the applicant has not his parent's or guardian's consent to his being so employed.
- (c) That his license has been previously revoked.
- (d) That he is not regularly attending a continuation class, as and when required by law.

There were no applications for medical certificates for street trading during the year 1925.

TABLE I.—Return of Medical Inspections.

A. ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections.

Entrants	...	...	...	858
Intermediates	...	...	...	646
Leavers	...	...	...	742
Total				2246

Number of other Routine Inspections ... Nil.

B. OTHER INSPECTIONS.

Number of Special Inspections ...	...	...	1264
Number of Re-Inspections ...	...	..	1094
			<hr/>
	Total	...	2358

TABLE II.—A. Return of Defects found by Medical Inspection in the year ended 31st December, 1925.

Defect or Disease.					Routine Inspections.		Special Inspections.	
					No. of Defects.		No. of Defects.	
					Requiring treatment.	Requiring to be kept under observation but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation but not requiring treatment.
Malnutrition					—	6	—	—
Uncleanliness (see Table IV., Group V.) :					—	—	1112	—
Skin	Ringworm :				—	—	—	—
	Scalp ... ..	...	...	...	—	—	5	—
	Body ... ..	...	...	...	—	—	10	—
	Scabies ... ..	...	...	...	—	—	—	—
	Impetigo ... ..	...	...	...	—	—	—	—
Eye	Other Diseases(non-tuberculous)				—	—	85	—
	Blepharitis ... ..	...	...	...	—	—	14	—
	Conjunctivitis ... ..	...	...	...	3	—	67	—
	Keratitis ... ..	...	...	...	—	—	—	—
	Corneal Opacities ... ..	...	...	...	—	—	—	—
Ear	Defective Vision				52	20	1	1
	(excluding squint)				—	—	—	—
	Squint ... ..	...	...	...	5	2	—	—
	Other conditions				—	3	27	—
	Defective Hearing ... ..	...	...	...	23	30	—	1
Nose and Throat	Otitis Media ... ..	...	...	...	5	3	1	—
	Other Ear Diseases				—	1	—	1
	Enlarged Tonsils only ... ..	...	...	...	25	80	—	1
Enlarged	Adenoids only ... ..	...	...	...	14	15	—	—
	Enlarged Tonsils and Adenoids				0	8	—	1
	Other Conditions				6	4	—	—
Cervical Glands (Non-Tuberculous)					—	—	1	—
Teeth.	Defective Speech				—	—	—	—
	Dental Diseases (see Table IV. Group IV.)... ..				—	—	—	—
Heart and Circulation	Heart Disease :				—	—	—	—
	Organic ... ..	...	...	...	—	2	—	—
	Functional ... ..	...	...	...	—	36	—	—
Lungs	Anæmia ... ..	...	...	...	3	8	—	1
	Bronchitis ... ..	...	...	...	—	—	—	—
Other Non-Tuberculous Diseases					—	1	—	—

TABLE II.—(continued.)

Defect or Disease.					Routine Inspections.		Special Inspections.	
					No. of Defects.		No. of Defects.	
					Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.
Tuber- culosis	Pulmonary :							
	Definite	...	...	...	—	3	1	—
	Suspected	...	...	...	—	1	—	—
	Non-Pulmonary :							
	Glands	...	...	...	—	1	1	—
	Spine	...	...	...	—	—	—	—
	Hip	...	...	...	—	—	—	—
	Other Bones and Joints	...	...	...	—	—	—	—
Nervous System	Skin	...	...	...	—	—	—	—
	Other Forms	...	...	...	—	—	—	—
	Epilepsy	...	...	...	—	—	—	—
	Chorea	...	...	...	5	3	—	—
Deform- ities	Other Conditions	...	...	...	8	1	—	—
	Rickets	...	...	...	—	—	—	—
	Spinal Curvature	...	...	...	3	2	—	—
Other Defects and Diseases...	Other Forms	...	...	...	2	1	—	1
		...	...	...	17	8	282	9

B. Number of Individual Children found at Routine Medical Inspection to require Treatment (excluding Uncleanliness and Dental Diseases).

Group.					Number of Children		Percentage of Children found to require Treatment
					Inspected	Found to require Treatment	
Code Groups :							
Entrants	...	...	...	...	358	35	4'0
Intermediates	...	...	...	...	646	44	6'8
Leavers	...	...	...	...	742	50	6'7
Total (Code Groups)					2246	129	5'7
Other Routine Inspections...					—	—	—

TABLE III. Return of all Exceptional Children in the Area.

		Boys	Girls	Total	
Blind (including partially blind).	(i.) Suitable for training in a School or Class for the totally blind.	Attending Certified Schools or Classes for the Blind ...	—	—	—
		Attending Public Elementary Schools	—	—	—
		At other Institutions	—	—	—
		At no School or Institution ...	—	—	—
	(ii.) Suitable for training in a School or Class for the partially blind.	Attending Certified Schools or Classes for the Blind ...	2	1	3
		Attending Public Elementary Schools	2	1	3
		At other Institutions	—	—	—
		At no School or Institution ...	—	—	—
Deaf (including deaf and dumb & partially deaf).	(i.) Suitable for training in a School or Class for the totally deaf or deaf and dumb.	Attending Certified Schools or Classes for the Deaf ..	5	5	10
		Attending Public Elementary Schools	—	1	1
		At other Institutions	—	—	—
		At no School or Institution ...	—	—	—
	(ii.) Suitable for training in a School or Class for the partially deaf.	Attending Certified Schools or Classes for the Deaf ...	—	—	—
		Attending Public Elementary Schools	1	4	5
		At other Institutions	—	—	—
		At no School or Institution ...	—	—	—
Mentally Defective.	Feeble-minded (cases not notifiable to the Local Control Authority.)	Attending Certified Schools for Mentally Defective Children	6	5	11
		Attending Public Elementary Schools	27	18	45
		At other Institutions	—	—	—
		At no School or Institution ...	—	—	—
	Notified to the Local Control Authority <i>during the year.</i>	Feeble-minded	—	—	—
		Imbeciles... ..	2	6	8
		Idiots	1	3	4
	Epileptics.	Suffering from severe epilepsy.	Attending Certified Special Schools for Epileptics ...	—	—
In Institutions other than Certified Special Schools ...			—	2	2
Attending Public Elementary Schools... ..			—	—	—
At no School or Institution ...			—	—	—

TABLE III.—(continued).

			Boys	Girls	Total
Epileptics (continued)	Suffering from epilepsy which is not severe.	Attending Public Elementary Schools... ..	6	4	10
		At no School or Institution ...	—	1	1
	Infectious pulmonary and glandular tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	—	—	—
		At other Institutions	—	—	—
		At no School or Institution ...	4	4	8
	Non-infectious but active pulmonary and glandular tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	1	2	3
		At Certified Residential Open Air Schools	—	1	1
		At Certified Day Open Air Schools	28	12	40
		At Public Elementary Schools	12	2	14
		At other Institutions	—	—	—
		At no School or Institution ...	7	9	16
Physically Defective.	Delicate children (e.g., pre-or latent tuberculosis, malnutrition, debility, anaemia, etc.).	At Certified Residential Open Air Schools	—	—	—
		At Certified Day Open Air Schools... ..	—	—	—
		At Public Elementary Schools	200	188	388
		At other Institutions	—	—	—
		At no School or Institution ...	—	—	—
	Active non-pulmonary tuberculosis.	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	2	—	2
		At Public Elementary Schools	—	—	—
		At other Institutions	—	—	—
		At no School or Institution ..	—	1	1
	Crippled Children (other than those with active tuberculous disease), e.g., children suffering from paralysis, etc., and including those with severe heart disease.	At Certified Hospital Schools	—	—	—
		At Certified Residential Cripple Schools	—	—	—
		At Certified Day Cripple Schools... ..	—	—	—
		At Public Elementary Schools	9	20	29
		At other Institutions	—	—	—
		At no School or Institution ...	1	—	1

TABLE IV. Return of Defects Treated during the year ended 31st December, 1925.

TREATMENT TABLE.

Group I. Minor Ailments (excluding Uncleanliness, for which see Group V.)

Disease or Defect.	No. of Defects treated or under treatment during the year.		
	Under the Authority's Scheme.	Otherwise	Total.
Skin			
Ringworm—Scalp	4	1	5
" Body	4	6	10
Scabies	—	—	—
Impetigo... ..	19	4	23
Other Skin Diseases	104	22	126
Minor Eye Defects	6	6	12
(External and other, but excluding cases falling in Group II.)			
Minor Ear Defects	77	7	84
Miscellaneous	293	30	323
(e.g., minor injuries, bruises, sores, chilblains etc.)			
Total.	507	70	583

Group II. Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I.)

Defect or Disease.	No. of Defects dealt with.		
	Under the Authority's Scheme	Submitted to re-fraction by private practitioner or at hospital, apart from the Authority's Scheme.	Otherwise.
Errors of Refraction (including squint) (Operations for squint should be recorded separately in the body of the Report).	92	5	2
Other Defect or Disease of the Eyes (excluding those recorded in Group I.)	—	—	—
Total	92	5	2

Total number of children for whom spectacles were prescribed

(a) Under the Authority's Scheme	...	...	92
(b) Otherwise	...	...	6

Total number of children who obtained or received spectacles

(a) Under the Authority's Scheme	...	...	68
(b) Otherwise	...	...	6

Group III. Treatment of Defects of Nose and Throat.

Number of Defects.

Received Operative Treatment.				
Under the Authority's Scheme, in Clinic or Hospital.	By Private Practitioner or Hospital, apart from the Authority's Scheme.	Total.	Received other forms of Treatment.	Total number treated.
38	—	38	—	38

Group IV. Dental Defects.

1) Number of Children who were:—

(a) Inspected by the Dentist:

Aged:

Routine Age Groups	5	1030	}	Total 6217
	6	447		
	7	424		
	8	513		
	9	659		
	10	718		
	11	716		
	12	672		
	13	637		
	14	401		
Specials	376
Grand Total				6593

(b) Found to require treatment 3951

(c) Actually treated ... 2702

(d) Re-Treated during the year as the result of periodical examination ... 1561

(2) Half-days devoted to:—

Inspection	...	53	} Total 786
Treatment	...	700	
Administration	...	33	

(3) Attendances made by Children for treatment ... 6877

(4) Fillings:—

Permanent Teeth	3164	} Total 4188
Temporary Teeth	1024	

(5) Extractions:—

Permanent Teeth	400	} Total 4837
Temporary Teeth	4437	

(6) Administrations of general anæsthetics for extractions ... 91

(7) Other operations:—

Permanent Teeth	126	} Total 482
Temporary Teeth	356	

Group V. Uncleanliness and Verminous Conditions.

(i)	Average number of visits per school made during the year by the School Nurses	...	...	...	12.9
(ii)	Total number of Examinations of children in the Schools by School Nurses	...	...	..	16,279
(iii)	Number of individual children found unclean			...	1,112
(iv)	Number of children cleansed under arrangements made by the Local Education Authority		...	...	Nil.
(v)	Number of cases in which legal proceedings were taken :				
	(a) Under the Education Act, 1921	...		...	Nil.
	(b) Under School Attendance Byelaws	...		...	50

REPORT
ON
DENTAL INSPECTION
AND
TREATMENT OF SCHOOL CHILDREN
For the Year 1925.

BY
W. BAIRD GRANDISON, L.D.S. R.C.S. Edin.,
PUBLIC DENTAL OFFICER.

THE DENTAL INSTITUTE,

35, PARK SIDE,

CAMBRIDGE.

December 31st, 1925.

To the Chairman and Members of the Education Committee.

LADIES AND GENTLEMEN,

I have the honour to submit the Eighteenth Report of the working of the Dental Institute, covering a period from January 1st, 1925, to December 31st, 1925, inclusive.

As usual every school in the Borough has been visited and every child with Dental Defects, and who accepted treatment, was dealt with, and as a result, 4968 Cambridge elementary school Children have sound or artificially sound Dentitions.

In this report, the statistical tables include detailed particulars of the teeth of all the school children, whether they have accepted treatment or not, a practice which has not been adopted during the last few years.

I desire to acknowledge the valuable help of my Assistant and Dental Attendants in the compilation of the Statistics necessary for this report.

I am,

Ladies and Gentlemen,

Your obedient servant,

W. BAIRD GRANDISON.

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Report on the Dental Inspection and Treatment of School Children.

FOR THE YEAR 1925.

I.—SCOPE OF THE SCHEME.

The Eighteenth Report on the working of the Dental Institute covers the year 1925, and relates to twelve months actual treatment. All children of all ages are embraced within the scheme, and the work includes active conservative treatment of the temporary dentition in addition to that of the permanent dentition, the object being to prevent, as far as possible, the onset of decay in the permanent dentition, particularly the first permanent molars, which are subjected to removal, as a direct result of neglect of the temporary dentition.

IA.—INSPECTIONS.

During the year 1925, 53 inspection sessions were held, 700 treatment sessions were held, and 33 sessions devoted to work of an administrative and organising character.

It has frequently been urged that parents should be invited to attend the dental inspections, in order that the officer responsible for the treatment may offer explanations, and give advice, in the hope that existing prejudice may be satisfactorily broken down, and the numbers accepting treatment required consequently increased. I am not in sympathy with this point of view, as, tho' the motive is quite sound, one must not forget that a prolonged period of inspection at the schools, causes, not only a temporary dislocation of the educational services, but the officer concerned has a large quantity of actual dental treatment to complete within a specified time, work which demands quality of workmanship, and he could therefore be better employed in the Clinic, where parents could receive all the necessary advice and instructions and, in addition, actually witness the accomplishment of the work, should they so desire. Inspections should be dealt with in the minimum of time coupled with the maximum of efficiency, and experience proves the following method to be satisfactory to all concerned. "Examine children with sound teeth thoroughly and the remainder casually," by this means it should be possible to complete over 100 cases per session.

The following statistical tables relate to the teeth of children attending the elementary schools in Cambridge, whether they have accepted treatment or not. In the year 1925 the number of children comprised in the routine examinations was 6217, of this number 2266 had sound dentitions, 2702 required treatment and received treatment and 1249 required treatment but were not treated,

II.—SUMMARY OF WORK DONE.

A.—Table showing the number of children examined and the number of children treated during the year 1925 :—

Month.	No. of Children Examined	Number of Children Treated for :—			No. of Children Refusing Further Treatment.
		Fillings only.	Fillings and Extractions	Extractions only.	
January ...	353	60	73	46	—
February ...	474	82	81	84	—
March ...	577	131	89	46	—
April ...	455	63	42	44	—
May ...	603	155	100	96	1
June ...	608	137	90	67	—
July ...	542	128	86	81	2
August* ...	—	—	—	—	—
September	657	118	106	116	—
October ...	692	90	137	119	5
November	594	58	101	76	—
December	662	—	—	—	—
Total ...	6217	1022	905	775	8

* Clinic closed for vacation.

The above figures include treatment of the temporary dentition.

B.—Table showing the number of operations performed during the year 1925.

Month.	FILLINGS.			EXTRACTIONS.		Teeth Treated with Nitrate of Silver.
	Amalgam.	Amalgam and Cement.	Amalgam with Root Canal treatment	Temporary Teeth.	Permanent Teeth.	
January ...	292	63	23	249	22	5
February ...	344	71	34	396	30	96
March ...	373	95	29	269	36	87
April ...	159	49	29	202	18	92
May ...	413	120	21	410	52	187
June ...	331	88	36	295	44	150
July ...	340	49	32	348	45	122
August*	—	—	—	—	—	—
September	346	73	20	521	43	187
October	394	54	11	678	36	247
November	288	42	2	490	18	124
December	3	4	1	8	3	—
Total ...	3283	708	238	3866	347	1297

* Closed during August for vacation.

The above figures include treatment of the temporary dentition.

One session each week was devoted to work on casual cases chiefly to relieve pain, and, as the statistics resulting therefrom are not included in Table B, particulars relating to work on casual cases are recorded herewith.

Bb.—Table showing the number of children attending as Casual Cases and the operations connected therewith.

Number of Casual Cases	Number of Extractions		Number of Fillings		Number of Teeth treated with Nitrate of Silver
	Temporary Teeth	Permanent Teeth	Temporary Teeth	Permanent Teeth	
376	571	53	20	61	63

The total number of temporary teeth extracted during the year 1925 was 3866, as compared with 3719 in the year 1924, and the total number of permanent teeth extracted was 347, as compared with 336 in the year 1924. Extractions of permanent teeth continue to be necessary every year, as, parents who have refused treatment previously for their children, when the teeth were saveable, are forced to send their children to the clinic to seek relief from "Violent toothache," the only cure for which, at this stage, is removal; further, extractions of permanent teeth are necessary, as a preventative measure against the onset of dental carriers in those children whose teeth are so crowded, that cleanliness is impossible. Parents should realise that loss of permanent teeth and overcrowding can only be avoided by early inspection and treatment of the 1st or temporary dentition.

III.—SUMMARY OF ALL EXAMINATIONS.

C.—Table showing the results of an examination of the teeth of Elementary School Children.

Age.	Number of Children Examined.	Number of Temporary Teeth			Number of Permanent Teeth		
		Sound.	Decayed Saveable	Decayed Un-saveable.	Sound.	Decayed Saveable	Decayed Un-saveable.
5 Years	1030	16187	1738	1732	614	41	—
6 "	447	5592	553	843	1677	106	1
7 "	424	4453	351	773	3141	211	8
8 "	513	4023	180	861	5237	400	14
9 "	659	4034	80	872	8284	589	55
10 "	718	3088	25	665	11136	633	80
11 "	716	1613	7	383	14364	681	115
12 "	672	524	1	215	15256	848	195
13 "	637	171	—	103	15160	864	207
14 "	401	45	—	18	9777	587	97
Total	6217	39730	2935	6465	84646	4960	772

D.—Table calculated from Table C giving the average results for 100 Children of Each Year of Age.

Age.	Number of Children Examined.	Number of Temporary Teeth			Number of Permanent Teeth		
		Sound.	Decayed Saveable	Decayed Un-saveable	Sound.	Decayed Saveable	Decayed Un-saveable
5 Years	100	1571	168	168	59	4	—
6 "	100	1251	123	188	375	23	—
7 "	100	1050	82	182	717	40	2
8 "	100	784	35	167	1020	77	2
9 "	100	611	12	132	1257	89	8
10 "	100	430	3	92	1551	88	11
11 "	100	225	—	53	2006	95	15
12 "	100	78	—	32	2270	126	28
13 "	100	26	—	16	2379	135	32
14 "	100	11	—	4	2436	146	24

The actual number of children examined during the year 1925, excluding casual cases, was 6,217. In addition 376 children were examined and treated for the relief of pain.

The temporary and permanent teeth are arranged in three divisions, those which were sound, those which were decayed but were saveable, those which were decayed and unsaveable, and therefore required extraction.

Table C shows the results of the examination of the teeth of the children, while **Table D** shows the figures in the preceding Table expressed in the ratio of 100 children of each age, to enable comparison with the figures given with the reports for previous years.

The total number of teeth examined in the routine cases was 139,508. Of 49,130 temporary teeth 80·8 per cent. were sound, this is 6·4 per cent. less than the corresponding proportion of last year, nevertheless the condition of the temporary dentition is maintained at a high standard of efficiency. The percentage of decayed saveable teeth is similar to that of last year, and the percentage of decayed unsaveable temporary teeth is increased by 2·6 per cent., the percentages being 10·5 in the year 1924, and 13·1 per cent. in the year 1925. This increase is due to the fact that more children aged 5 years have been inspected and treated in the year 1925. There is a similar improvement in the condition of the permanent dentition.

*I.—Table showing the distribution of Unsaveable Permanent Teeth.

Year.	Number of Children grouped with the Number of unsaveable Permanent Teeth in each Mouth.							Total Number of Children with Unsaveable Per- manent Teeth.	Total Number of Unsaveable Per- manent Teeth.
	I.	II.	III.	IV.	V.	VI.	VII. or more.		
1925	280	122	39	28	2	—	1	472	772

* Tables indicated alphabetically may be compared with similar Tables in previous reports. Tables indicated numerically are usually peculiar to this Report.

E.—Table showing the number of children examined **before treatment**, and the number and percentage having no decay present, as also the number and age of children without permanent teeth emerged, and the number and age of children who had lost all their temporary teeth.

Age.	Number of Children Examined.	No Decay including Both Dentitions.		Number of Children without Permanent Teeth	Number of Children without Temporary Teeth
		Number of Children.	Percentage.		
5 Years	1030	301	29.2%	833	—
6 "	447	110	24.6	115	—
7 "	424	119	28.0	26	—
8 "	513	146	28.4	1	1
9 "	659	208	31.5	—	29
10 "	718	272	37.8	—	82
11 "	716	328	45.8	—	204
12 "	672	303	45.0	—	465
13 "	637	284	44.5	—	548
14 "	401	195	48.6	—	381
Total	6217	2266	37.4	975	1800

II.—Table showing the age and number of children inspected, and the number and percentage having no decay, one or two, three or four, five or six, seven or more decayed teeth present, both dentitions combined, before treatment in the year 1925.

Age.	No. of Children Examined.	Number and Percentage of Children who each had before treatment.									
		None Decayed.	%	One or Two Decayed.	%	Three or Four Decayed.	%	Five or Six Decayed.	%	Seven or More Decayed.	%
5 Years	1030	301	29.2	173	16.8	219	21.2	161	15.6	176	17.0
6 "	447	110	24.6	85	10.0	101	22.5	78	17.4	73	16.3
7 "	424	119	28.0	81	19.1	90	21.2	79	18.6	55	12.9
8 "	513	146	28.4	116	22.6	135	26.3	57	11.1	59	11.4
9 "	659	208	31.5	193	29.2	138	20.9	69	10.4	51	7.7
10 "	718	272	37.8	183	25.4	146	20.3	75	10.4	42	5.8
11 "	716	328	45.8	186	25.9	133	18.5	37	5.1	33	4.6
12 "	672	303	45.0	143	21.1	141	20.9	56	8.3	29	4.3
13 "	637	284	44.5	160	25.1	101	15.8	58	9.1	33	5.2
14 "	401	195	48.6	92	22.9	60	14.9	33	8.2	21	5.2
Total ...	6217	2266	36.4	1412	22.7	1264	20.3	703	11.3	572	9.2

Table E shows that on examination and before treatment 2299 children were found to have sound dentitions, either naturally or artificially.

Table II. shows how the decayed teeth found were distributed, and it will be noticed that 43 per cent. of the children have four or less teeth decayed. If to this percentage we add the 36.4 per cent. of children with sound dentitions, we find that 20.6 per cent. of all the children examined have more than four decayed teeth each as compared with 14.7 per cent. in the year 1924, an increase of 5.9 per cent. All these figures apply to both dentitions, and refer to the condition prior to treatment. The temporary dentition was responsible for the majority of the 20.6 per cent. of the children who had more than four teeth decayed.

F.—Table showing the number and age of children with permanent teeth, and the number and percentage having sound permanent teeth, artificially sound permanent teeth **after treatment**, during the year 1925, together with the number and percentage of children who had unsaveable or saveable permanent teeth and were not treated.

Age.	Number with Per- manent Teeth.	Number of Children whose Permanent Teeth were						Children with Saveable Permanent Teeth but were not Treated.	
		Sound.		Made Artifici- ally Sound.		Unsaveable.			
			%		%		%		%
5 Years	197	167	84.7	18	9.1	—	—	12	6.0
6 ..	332	276	83.1	34	10.2	1	.3	21	6.3
7 ..	398	291	73.1	76	19.0	4	1.0	27	6.7
8 ..	511	316	61.8	125	24.4	10	1.9	60	11.7
9 ..	659	367	55.7	198	30.0	15	2.2	79	11.9
10 ..	718	420	58.4	186	25.9	23	3.1	89	12.3
11 ..	716	380	53.0	193	26.9	35	4.8	108	15.0
12 ..	672	346	51.4	186	27.7	59	8.7	81	12.0
13 ..	637	302	47.4	198	31.0	62	9.7	75	11.7
14 ..	401	200	49.8	153	38.1	18	4.4	30	7.4
Total	5241	3065	58.4	1367	26.0	227	4.3	582	10.9

Table F shows that of the total number of children examined who had permanent teeth 58.4 per cent. had sound or artificially sound permanent teeth. A further 26 per cent. were made sound during the year. Thus, after treatment, 84.4 per cent. of the children examined with permanent teeth were left with that dentition free from caries. The remainder of the children (15 per cent) who had permanent teeth requiring treatment did not fulfil their appointments.

No. of children inspected who have received no treatment.

1,249 children, that is **20 per cent.** of the total number inspected or **31 per cent.** of the total number who required treatment during the year, did not receive treatment for various reasons, some of which were reasonable, but the majority were unreasonable and therefore detrimental to the health of the children concerned. For convenience, I choose to classify these children as "untreated," and summarise the same into the following categories :

		SUMMARISED.	
Total number untreated 1,249 or 31 % of the number who required treatment.	1st	Definite refusals in writing ...	= 767 or 19.4 %
	2nd	Repeatedly absent when called for...	= 71 ,, 1.7 %
	3rd	Children whose parents prefer to enlist the services of private dentists	= 117 ,, 2.9 %
	4th	Postponed by the request of parents occasionally supported by a medical certificate	= 247 ,, 6.2 %
	5th	Postponed by the dentist on reason- able grounds	= 47 ,, 1.1 %
		Total	1249 ,, 31.3 %

Written refusals were received from 739 parents comprising 767 children, but in addition I must submit as refusals all the children coming under the heading of "repeatedly absent," and the great majority of the children who are supposed to visit their own dentist, but who fail to make or keep appointments, making a total of 955 children or **24 per cent.** of those requiring treatment.

Parents must appreciate the fact that a refusal of dental treatment signifies, on their part, the acceptance of the outcome of prolonged dental disease, namely, "ill health." Parents should also understand that it is not necessary for a tooth or teeth to give rise to severe pain before the seeds of future bodily injury to the child are sown. The commencement of dental disease is co-incident with the ingestion of harmful toxins into the general circulation and, therefore, throughout the body, and it is as well to remember, that tho' the extraction of a tooth is a comparatively simple matter and ends all local trouble, the harm done to the body remains by virtue of previous invasion of toxins into the system.

Theoretically parents agree in every detail with the explanations conveyed to them on the "cause and effect" of diseased teeth, and appear eager to seek a remedy from the evil, but, when one desires to put into practice that which has been accepted in theory, one is confronted with a different aspect altogether. Parents are then constrained to opposition, placing consideration for nerves, youth, sympathy, etc., before health. Occasionally, the Dentist would prefer to send a child home untreated, rather than execute some intricate and difficult operation, but the knowledge of the result of such neglect is such that the future welfare of the child far outweighs any personal discomfort the Dentist may have to endure. Might I invite parents to adopt a somewhat similar attitude as, ignoring health altogether for a moment, "Why should parents refuse or

desire to postpone treatment?" Surely they must know that a postponement of treatment leads to an exaggeration of existing conditions, and still further postponement is followed by hours of localised pain and sleepless nights, eventually forcing parents to accept that which they had intended to avoid, and under very different conditions.

Vast improvements have been effected in Dentistry in the last few years. Instruments and appliances have been perfected to such an extent that it is now possible to obviate any Dental defects, be they connected with the removal or the restoration of teeth, with the minimum of discomfort. Accordingly, Parents might in future take full advantage of the dental services offered and in addition make some endeavour to prevent the onset of Dental disease, an achievement made possible by :

- (1st) Bringing your child to the Clinic for inspection and advice very early in life (aged 2 or even younger).
- (2nd) Choose a Diet requiring thorough mastication and train the child to masticate thoroughly before swallowing.
- (3rd) Keep the teeth always clean.

Prevention is better than cure, and our aim must be to Prevent Dental Disease and so assist in the promotion of Good Health.

IV.—SUMMARY OF EXAMINATION OF NEW PATIENTS.

The number of new patients examined for the first time in the year 1925 was 933.

V.—Table showing the number, age and sex of the children examined for the first time in the year 1925, and the number of sound, decayed saveable and decayed unsaveable teeth of each dentition that they possessed.

Boys.

Age	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
5 Years	304	4932	528	531	71	10	—
6 "	39	513	30	123	134	13	—
7 "	33	327	20	70	262	32	—
8 "	18	167	5	44	189	12	—
9 "	29	100	4	60	305	39	4
10 "	5	25	—	3	86	1	3
11 "	5	9	—	4	89	13	1
12 "	9	6	—	2	207	14	1
13 "	8	—	—	1	185	18	4
14 "	5	—	—	—	114	18	6
Total ...	455	6169	587	838	1642	170	19

GIRLS

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
5 Years	298	4702	538	563	148	5	—
6 "	35	641	77	116	212	11	—
7 "	30	330	42	66	209	6	2
8 "	21	170	12	43	226	25	—
9 "	13	69	3	22	185	18	4
10 "	12	65	—	13	186	12	3
11 "	15	29	—	5	343	16	9
12 "	19	5	—	3	431	33	8
13 "	13	4	—	6	305	21	2
14 "	2	—	—	—	51	4	—
Total ...	478	6015	672	837	2296	151	30

VI.—Table showing results of an examination of 1169 children who required no treatment previously.

BOYS.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable	Decayed Unsaveable.	Sound.	Decayed Saveable	Decayed Unsaveable.
5 Years	144	2271	264	248	99	7	—
6 "	83	1102	95	160	229	17	—
7 "	40	523	31	76	245	9	—
8 "	37	358	8	77	344	30	—
9 "	50	361	4	102	610	38	11
10 "	54	331	2	79	800	57	10
11 "	46	117	1	36	885	55	7
12 "	42	46	—	27	905	57	21
13 "	56	36	—	29	1370	71	29
14 "	30	9	—	2	746	15	2
Total	582	5154	405	836	6233	356	80

GIRLS.

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable	Decayed Un-saveable.	Sound.	Decayed Saveable	Decayed Un-saveable.
5 Years	125	2052	132	176	111	11	—
6 "	58	754	94	165	230	18	—
7 "	33	414	34	93	263	9	—
8 "	64	523	25	176	641	64	3
9 "	47	348	5	100	592	38	8
10 "	68	294	—	117	1105	79	9
11 "	66	159	2	36	1317	87	14
12 "	43	26	—	13	1026	54	21
13 "	54	11	—	6	1342	60	23
14 "	29	—	—	1	751	28	5
Total	587	4581	292	883	7387	448	83

VII.—Table showing the results of an examination of 4115 children who had been treated previously.

Age.	Number of Children.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable	Decayed Un-saveable.	Sound.	Decayed Saveable	Decayed Un-saveable.
5 Years	159	2230	276	214	185	8	—
6 "	212	2582	257	279	863	47	1
7 "	288	2859	224	468	2162	155	6
8 "	373	2805	130	521	3837	269	11
9 "	520	3066	64	588	6592	456	28
10 "	579	2373	23	453	8959	484	53
11 "	584	1299	4	302	11730	510	84
12 "	559	441	1	170	12687	690	144
13 "	506	120	—	61	11958	694	149
14 "	335	36	—	15	8115	522	84
Total	4115	17811	979	3071	67088	3835	560

Anyone who cares to analyse the foregoing statistics will appreciate to the full the enormous value of a systematic and thoroughly organised scheme of dental treatment for school children. When one considers, for example, that there are in Cambridge 5,000 school children, approximately, who show absolutely no evidence of dental caries, the reality of which is due principally, though not now wholly, to actual dental treatment, one will agree that something has been achieved which is, to say the least, unusual, and of infinite benefit to those concerned.

At the same time it should be possible to produce still better results ; indeed the elimination of dental caries from the teeth of school children in Cambridge would ensue in a very short space of time were it not for the fact that various factors still exist to hinder progress and thus prevent the attainment of the ideal. I refer to the apparent lethargy of parents in oral matters or the failure of parents to appreciate the effect of decayed teeth on health generally, with the result that the teeth of the children are not kept clean, the children are not sent periodically to the dentist for advice or treatment, and the food which they consume aggravates rather than relieves existing conditions. The following Summary is an attempt on my part to assist parents to alter their views and understand clearly that " Good health is dependent very largely on good teeth."

SUMMARY OF HYGIENE OF THE MOUTH.

DIET.

Human enamel with which the crowns of teeth are invested, is unable to withstand attacks from acids. Acids form in the mouth from the decomposition and fermentation of certain articles of our present day diet, thus the food we eat and the method of feeding are perhaps the most potent factors in the causation of dental caries with subsequent loss of the teeth and permanent bodily injury to the individual concerned.

" Civilised man (says R. H. A. Plummer, D.Sc. Lond.) has no instinct for choosing the right kind of food ; his likes and dislikes are not a reliable guide amongst the overwhelming abundance of artificial products which are offered to him. If we want to find races with splendid physique, perfect teeth and health, we must look in those out of the way corners of the world where geographical isolation or religious restrictions have caused the natives to adhere to the primitive diet of their forefathers—wholemeal flour, seeds, fruits and vegetables, often eaten raw with a good deal of milk and butter and little or no meat. On this diet they are healthy and live to an active old age. They do not suffer from the diseases of civilisation, diseased teeth, constipation, indigestion, gastric and duodenal ulcers, gall stones, appendicitis, colitis, rheumatism, cancer and diabetes, although they live under very insanitary conditions and may be exposed to damp and extremes of heat and cold. European settlers amongst these natives are much better housed and washed, but suffer from the diseases enumerated above and die with tragic frequency from cancer. Doctors who have worked for many years in such districts, have

concluded that the good condition of the natives and the diseased state of the Europeans can only be explained by the difference in their food. The Europeans are not content with the native food grown locally but import white cereals, tinned foods and sugar. If the natives adopt the same diet as the Europeans they no longer have perfect teeth and suffer from the same diseases." Obviously, therefore, we are confronted with a problem requiring solution and drastic action.

Good sound teeth are an essential to health, incorrect dieting tends more than anything else to rob the individual of this very necessary adjunct to health, and yet the position of the dental officer with regard to the subject of diet is, to say the least, very difficult. He knows perfectly well what to recommend for human consumption and what should be avoided, but by virtue of his being entirely unacquainted with the medical history of the individual, past and present, he may, very probably will, recommend various articles of foodstuffs which have been repeatedly condemned by members of that profession whose privilege it is to know and to understand their patient's powers and limitations. When, therefore, it is intended to recommend any substantial alteration in the diet of the individual the same should unquestionably originate from the members of the medical profession, and we dentists should content ourselves by respectfully intimating our recommendations to that body for their earnest deliberation. We must recognise for example :

- 1st That the teeth are the organs of mastication, and should be utilised as such.
- 2nd That a reduction in the quantity of sugar consumed, now 30 times larger per head of the population than that of 100 years ago, is necessary.
- 3rd That an increased consumption of natural foods is indicated at the expense of the food of convenience, namely,

commercialised or less perishable foods. I prefer to submit my proposals to the medical profession, pointing out the importance, the necessity of an alteration in our mode of living, together with the discrepancies that arise from time to time, such as the mis-use of the milk diet, so often prescribed by doctors being continued long after the symptoms necessitating the same have subsided, and, instead, concentrate attention on a subject, though secondary in importance to diet, is none the less effective to maintain the teeth in a thoroughly sound condition. I allude to "Oral Cleanliness or the Use of the Tooth Brush."

Though foodstuffs, which are harmful, continue to be consumed promiscuously, the detrimental effect on external tooth structure can be overcome by the frequent and correct use of the toothbrush, for this reason, "Decomposition followed by fermentation and the production of acid forming bacteria does not take place until some time after the partaking of a meal."

If, therefore, sound teeth is a necessary adjunct to good health, it is essential to take such measures as will insure the child freedom from dental disease, and to accomplish this one must be prepared to give up the necessary time to the cleanliness of the teeth,

Clean spaced teeth do not decay

is our slogan, and there is, in Cambridge, ample evidence to show that those children who clean their teeth thoroughly after every meal have teeth which show no evidence of dental caries year after year. Many there are who will argue that other factors exist which exert an important influence on the teeth, such, for example, as "Correct feeding and the method of feeding," or "some intricate and complex connection with the endocrine glands," but the fact remains that the teeth of the children concerned are clean.

In Cambridge we have children who clean their teeth, and children who do not, the latter predominating, and although the children themselves know and the parents know that to permit teeth to remain unclean is the surest method of promoting dental disease they nevertheless avoid the toothbrush as much as possible, or altogether, more, certainly, by forgetfulness than by design.

Accordingly, Oral cleanliness must be controlled, as it were, and for this purpose we enlist the active support of the teaching profession, and I am pleased to record that a great deal of work has been done by the teachers, and I am most grateful and desire to express my indebtedness to them and trust that they will continue to offer me their assistance and, if possible, bestir themselves to still further efforts in order to obtain the possible ideal.

Assistance at inspection, assistance with appointments, and, above all, the encouragement of strict cleanliness are essentials to the success of any dental scheme, which I, personally, enjoy, without which our scheme would most assuredly sink from its high pedestal into that of mere casual treatment of serious defects.

The sale or free distribution of tooth brushes, with the knowledge that the same are used regularly and properly, is unquestionably an economic proposition, as, by its means, much of the dental caries so freely distributed amongst the teeth of school children generally can be prevented, thus effecting a saving in the somewhat extravagant materials used in rendering sound, teeth which are diseased.

Finally, I consider the time is appropriate for the institution of specialist lectures to older children in order that they may become more acquainted with simple and known facts concerning the oral cavity and structures appertaining thereto.

Table VIII. indicates the condition of the teeth of 6,217 children after treatment in the year 1925 revised from the bottom of Table C.

Number of Children.	Temporary Teeth.			Permanent Teeth.		
	Sound.	Decayed Saveable.	Decayed Unsaveable	Sound.	Decayed Saveable.	Decayed Unsaveable
6217	41833	832	2599	87657	1949	425

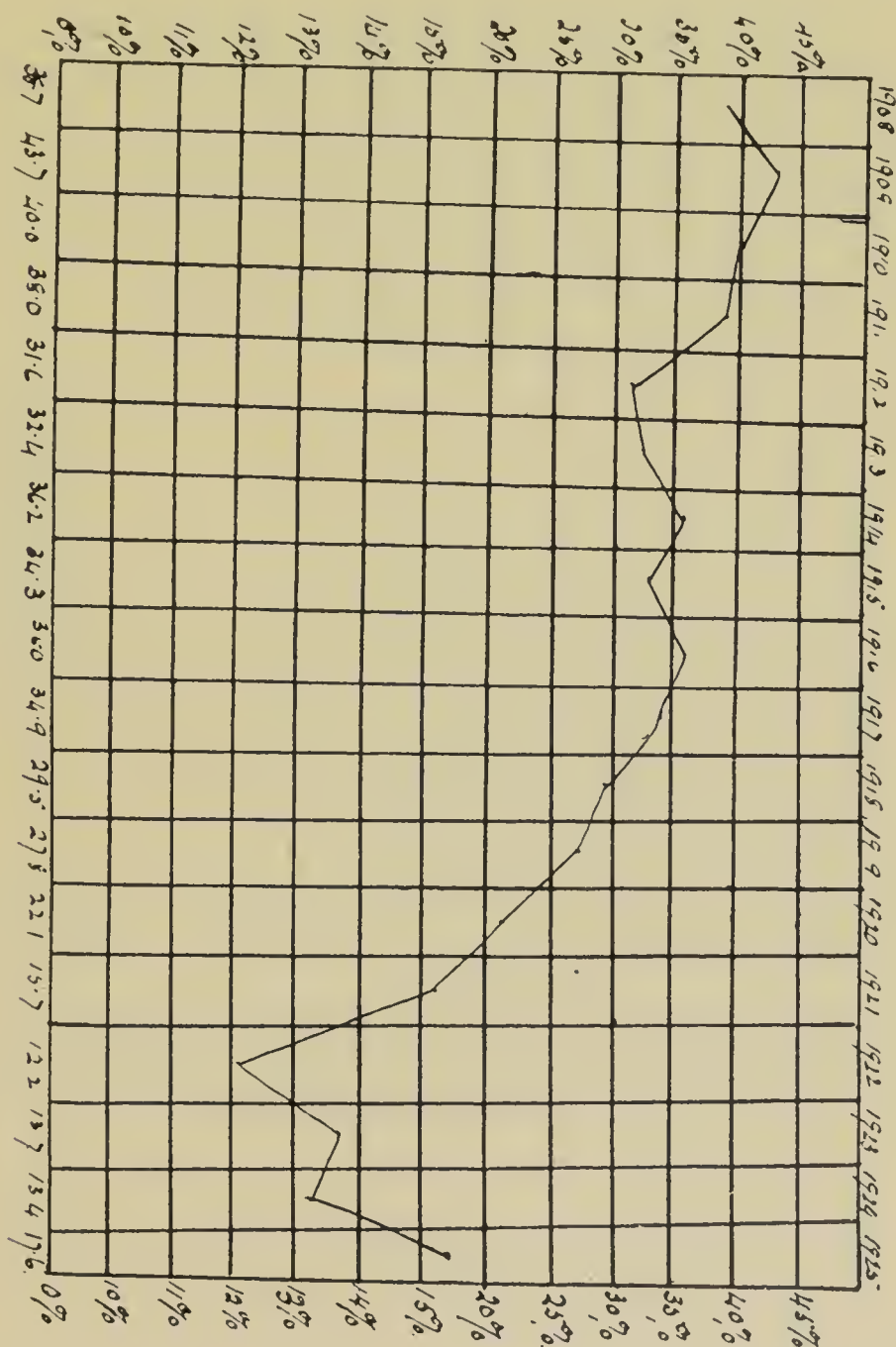
4968 elementary school children have sound or artificially sound temporary or permanent dentitions, the remainder, 1249 children show defects indicated in the above table. The condition of the teeth, therefore, of elementary school children in Cambridge is highly satisfactory, but could be improved if the appointments offered were accepted, if due attention was paid to the subject of Diet and special attention devoted to Oral Cleanliness.

Table IXA. shows the number of temporary teeth examined and the percentage sound, the percentage decayed saveable, and the percentage decayed unsaveable, with similar results from previous years to permit of a comparison.

Year	Number of Temporary Teeth Inspected.	Temporary Teeth.		
		Percentage Sound.	Percentage Decayed Saveable.	Percentage Decayed Unsaveable.
1908	32341	48.1%	13.7%	38.2%
1913*	44549	50.6	35.0	5.4
1914*	40218	61.8	32.3	5.9
1915*	52262	63.0	32.1	4.0
1916*	44637	63.6	32.7	3.6
1917*	44312	62.0	34.2	3.6
1918*	42705	64.5	32.0	3.4
1919*	53533	65.2	31.8	3.0
1920*	36228	67.0	30.0	2.9
1925*	45264	92.4	1.8	5.6

* After treatment during the year.

Diagram.—Showing the percentage of decay in the temporary teeth of the children aged 5 years, before treatment in each year of the scheme of School Dental Inspection from 1908 to 1925 (inclusive).



The above diagram indicates the percentage of decayed temporary teeth to the total number of temporary teeth present in the 5-year-old group of children, before treatment in each year that the scheme has been in existence.

It is necessary to record an increase, from 13·4 per cent. in the year 1924 to 17·6 per cent. in the year 1925, in the percentage of decay present in the 5 year old group of children at inspection. To account for such an increase one must be excused a certain measure of conjecture. Certainly, approximately 400 more 5 years old children were inspected during the year 1925, but we are dealing with children born in the year 1920 or the first year after the war and I am inclined to the belief that the release of certain articles of foodstuffs, difficult to obtain during the war period, especially sugar and sugar containing foods and the corresponding increase in the consumption of the same plays no small part in rendering it difficult to maintain the teeth in a thoroughly sound condition.

OTHER OPERATIONS.

During the year 1925 numerous operations were performed of a minor character, such for example as scaling, gum treatment and also crowns and treatment of irregularities of the teeth. Orthodontic work has been confined to simple cases of irregularity, cases that is to say which could be rectified by the judicious extraction of one or more permanent teeth or by the application of simple economic apparatus.

In Cambridge during the year 1925 9 simple cases of irregularity have been successfully overcome and 51 permanent teeth have been extracted for orthodontic purposes.

The 51 permanent teeth are divided into two categories :

- (1st) First permanent molars, saveable, but with pulps infected.
- (2nd) Second premolars badly placed in the dental arch.

